



# INCOSE UK Chapter Autumn Assembly 2001



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Morning session : Monday 12 th November

## Understanding & Dealing with *Systems*

Session chairman :

Professor Philip John, Cranfield University

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## Aim

*To stimulate discussion about ....*

- the fundamental nature of the systems challenges we face*
- the Systems Engineering approach needed to meet them*
- ... and what we as the SE community need to do to progress our discipline*



# Systems



Systems problems  
&  
Systems solutions

*Understanding &  
Dealing with  
SYSTEMS*

# Engineering



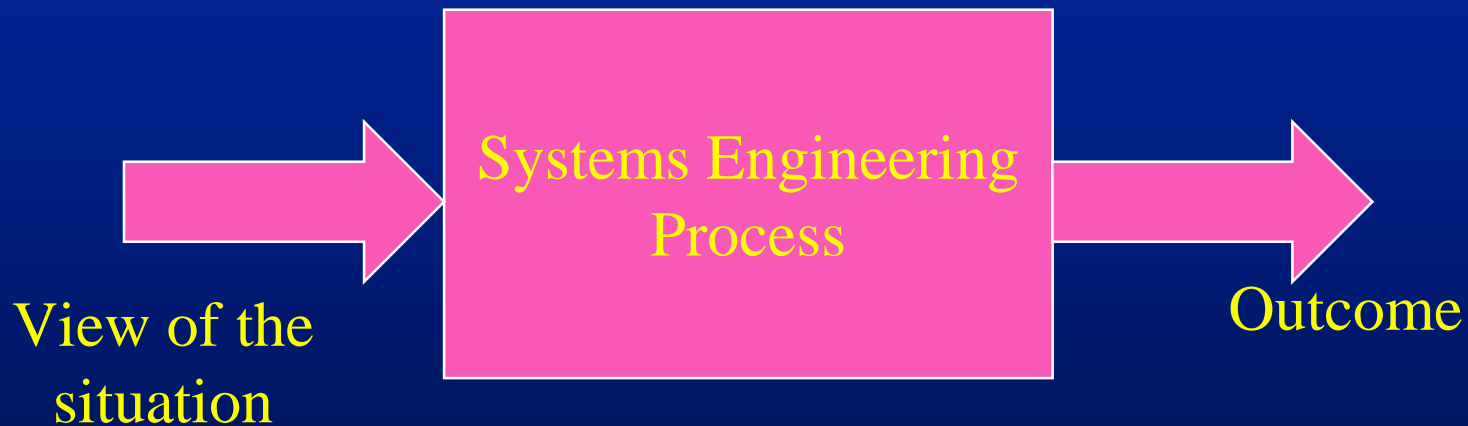
Developing &  
implementing an  
acceptable, useful  
solution to a real  
world problem

*Systematic, Disciplined  
PROCESS*

+



# Systems Engineering Process

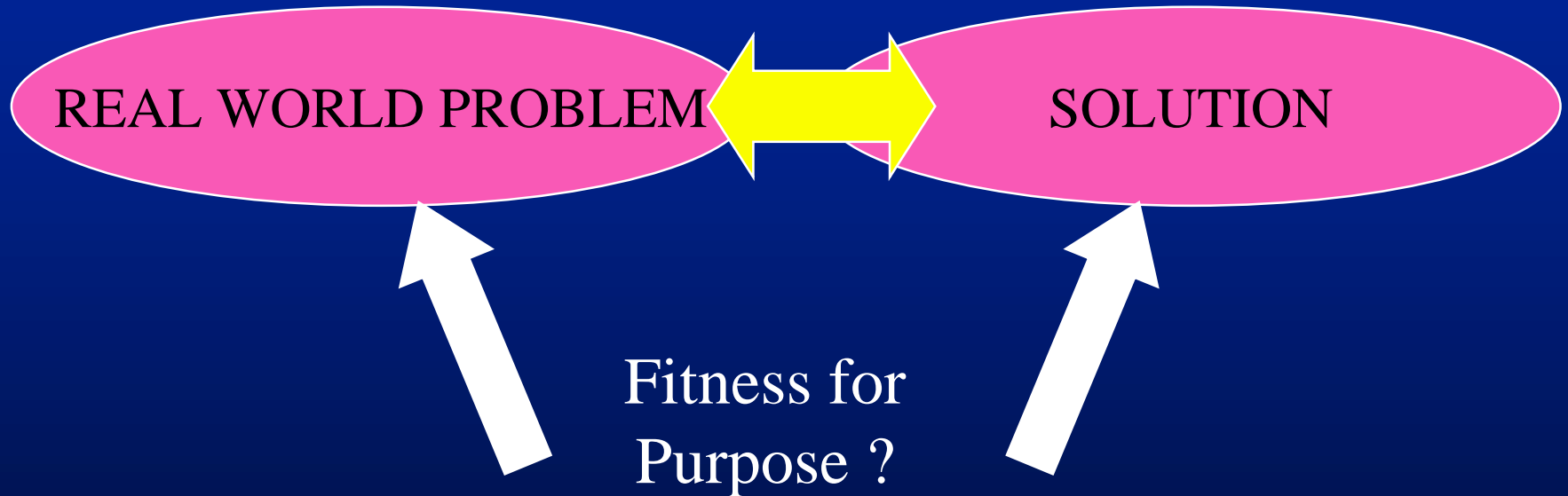


“Rubbish in” → “Rubbish out”

We must “solve the problem right”  
and “solve the right problem”



# SE approach : Fit for Purpose ?



(appropriate to the nature of the problem and of the solution )

SYSTEMS ENGINEERING APPROACH  
(process, methods, tools)



# Morning Programme

- 09:15 Introduction to session
- 09:30 Systems Engineering : Past, Present & Future  
*Prof Philip John*
- 10:00 Developing a context for methods  
*Prof Andrew Farncombe*
- 10:30 Refreshment break
- 10:45 Systems Engineering : Principles & Practices  
*Rick Adcock*
- 11:15 Discussion session (incl Panel Question & Answer)  
*Rapporteur & Panel Chairman : Allen Fairbairn*
- 12:30 UK Chapter AGM
- 13:00 Lunch



# Speakers (1)

## Systems Engineering : Past, Present & Future

*Prof Philip John, Cranfield University*

- \* Professor of Systems Engineering
- \* Industry : Head of Systems Engineering for MBD
- \* Member :
  - > National Advisory Committee for Systems Engineering
  - > National Advisory Committee for Synthetic Environments
  - > Executive team for IEE Professional network in SE
  - > Defence Scientific Advisory Council on Federated Systems
  - > MOD Smart Requirements Review Board



# Speakers (2)

## Developing a context for models

*Prof Andrew Farncombe*

- \* Systems Engineering Consultant
- \* Associate with John Boardman Associates
- \* Industry : Technical Director, Command and Control Division, GEC-Marconi & Ultra Electronics
- \* Member of the Executive team for IEE Professional network in SE
- \* Visiting professor of Systems Engineering at Cranfield University



# Speakers (3)

## Systems Engineering : Principles and Practices

*Rick Adcock, Cranfield University*

- \* Lecturer in Systems Engineering
- \* Industry :
  - > Systems Engineering in defence & aerospace
  - > Major Systems Engineering improvement programmes
  - > SE Process and Infrastructure development
  - > SE Tool evaluation & selection